

II. REMARKS

Preliminary Remarks

This response is being timely filed as it is being filed with a petition for an extension of time to file within the second month.

After entry of this amendment, claims 1-12 and 15-25 will be pending in this patent application. Therefore, there will be an effective total of 23 claims, with 4 independent claims. The applicant originally paid for 23 claims, including 4 independent claims. Therefore, no additional claim fees are due.

In this amendment, the applicant has amended the claims to improve their clarity and readability and to conform to a format more commonly found in U.S. patent practice. Original dependent claims 13 and 14 have been cancelled in favor of new dependent claims 24 and 25. Independent claims 1, 15, and 16 have been amended to include the feature that “the apparatus does not contact the surface” and independent claim 9 has been amended to specify a “non-contact” method for examining a surface. No new matter has been added. Support for the claim amendments is found, *inter alia*, in Figures 1 and 2 of the drawings, and on page 6, line 22 of the specification.

In addition to the claim amendments, the applicant has amended the specification to remove an informality and to add section headings commonly found in U.S. practice. The applicant has also proposed drawing changes to obviate one of the examiner’s objections.

Objection to the Drawings

Figure 4 of the drawings was objected to as not being properly descriptively labeled. In response, the applicant has proposed drawing changes in which proper descriptive labels are added. Support for the descriptive labels may be found, *inter alia*, on pages 13-15 of the

specification. Accordingly, the applicant respectfully submits that if the proposed drawing changes are approved, the drawing objection will be moot.

Objection to the Specification

The specification was objected to because of an informality on page 1, line 9. In response, the applicant has replaced the language referred to by the Examiner. Additionally, as was noted above, the applicant has added section headings commonly found in U.S. practice. Accordingly, the applicant respectfully requests that the objection to the specification be withdrawn.

Patentability Remarks

35 U.S.C. § 112, Second Paragraph

Claims 1-23 were rejected under 35 U.S.C. § 112, second paragraph, as allegedly being indefinite. The examiner's position is that the term "a polarization analyser element or analyser," which was formerly recited in claims 1, 15, and 16, renders those claims indefinite. The examiner asks which components described in the specification that term is meant to encompass. The examiner also states that "it is unclear how the filter itself "analyses" the polarization," and "it is unclear how the step of a 'analysing' the the [sic] polarization beam is performed before the digital images are taken and processed." In addition to those comments, the examiner notes certain antecedent basis and other problems in claims 1, 6, 9, 13, 14, 15, 16, 17, and 23. The examiner also suggests that claim 23 be amended to depend from claim 21, rather than from claim 22.

First, with respect to the "polarization analyser element or analyser," the applicant has amended the relevant claims to recite a "polarization analyser element." The applicant respectfully submits that that phrase is definite. With respect to the examiner's comments and queries, the applicant respectfully submits that the examiner may have misunderstood the applicant's use of conventional optics terminology. In the field of optics, it is conventional to call a first polarizing filter that polarizes the light emanating from a light source a "polarizer," and it is conventional to call a second polarizing filter that polarizes and/or determines the polarization of light reflecting from a target an "analyser." The applicant has followed that convention. The functions of the "polarization analyzer element" are described on page 11 of the present specification, with reference to Figure 3.

In view of the conventional meaning of the term "analyser" in the optics art, the applicant respectfully submits that the examiner has applied an incorrect definition of the term "analyser," and, with respect to claims 1 and 9, is confusing the "analysing" recited in those claims with some sort of computerized analysis. The applicant respectfully submits that the claim is definite if the terms "analyser" and "analysing" are construed properly, *i.e.*, according to their conventional meanings in the art. If the examiner has any additional questions regarding this subject matter, the applicant respectfully submits that those questions might best be resolved by a telephonic or personal interview.

With respect to the language noted by the examiner in the other claims, the applicant has amended those claims to remove the language noted by the examiner. Moreover, claim 23 has been amended to depend from claim 21, rather than from claim 22, as the examiner suggested in the official action.

In view of the above, the applicant submits that all claims are definite and respectfully requests that the rejection be withdrawn.

35 U.S.C. § 102(e)

Claims 1-6 and 8-21 were rejected under 35 U.S.C. § 102(e) as allegedly being anticipated by Jacques, U.S. Patent No. 6,177,984 (hereinafter the '984 patent). The Examiner's position is that the '984 patent discloses: (1) an apparatus designed to examine a surface including a polarization analyser element (38); (2) means for taking digital images (50); and (3) a processing unit (54) capable of calculating the brightness and intensity of a plurality of points on the surface from pixels of at least two images.

We respect to claims 2 and 17, the Examiner asserts that the '984 patent discloses a source of polarized light. The Examiner also asserts that the '984 patent teaches a non-coherent white light source and a means for alternatively transmitting cross polarization and parallel polarization using electronic switching. Regarding claims 9-12, it is the Examiner's position that the '984 patent teaches a method for examining a surface including (1) "analysing" the polarization of a light beam; (2) taking digital images with a camera (50); and (3) and performing image processing (54) of a different intensities of a plurality points of a surface. The applicant respectfully traverses this rejection.

"A claim is anticipated only if each and every element as set forth in the claim is found, either expressly or inherently described, in a single prior art reference." *Verdegaal Bros. v. Union Oil Co. of California*, 814 F.2d 628, 631, 2 USPQ2d 1051, 1053 (Fed. Cir. 1987). The applicants submit that the '868 patent does not disclose each and every element of the applicant's claimed invention.

The applicant has amended independent apparatus claims 1, 15, and 16 to recite that “the apparatus does not contact the surface.” The applicant has made a similar amendment to method claim 9 to specify that the method is a “non-contact” method of examining a surface. The applicant respectfully submits that the ‘984 patent does not disclose a non-contact apparatus.

Instead, the ‘984 patent discloses an apparatus that has an optical coupling element in contact with the surface. As is explained at column 5, lines 3-7, “an optical element 18 in contact with the tissue provides good optical coupling to the tissue and a smooth element/tissue interface 20 which directs specularly reflected light 22 from the element/tissue interface 20 away from the tissue at a new oblique angle 23.”

Therefore, because the ‘984 patent does not disclose all of the features recited in independent claims 1, 9, 15 and 16, the applicant submits that the ‘984 patent cannot, as a matter of law, anticipate those claims or the claims that depend from them. Accordingly, the applicant respectfully requests that the rejection be withdrawn and not extended to new claims 24 and 25.

Although the foregoing constitutes a complete response to the rejection, the applicant also wishes to note that an apparatus that contacts the surface under examination has certain disadvantages, which are set forth on page 6, lines 22-31 of the present specification. In general, a contacting optical element may distort the shape of the surface, may distort the distribution of any surface treatment that may have been applied, or, if the surface is human skin or nails, a contacting element may be uncomfortable for the user.

35 U.S.C. § 103(a)

Claims 7, 22 and 23 were rejected under 35 U.S.C. § 103(a) as allegedly being unpatentable over the '984 patent. The examiner applies the '984 patent as in the rejection under 35 U.S.C. § 102(e) and adds that the '984 patent discloses "electronic switching means...instead of a rotating analyzer." The examiner's position is that "it would have been an obvious matter of design choice...to use...a rotating polarization analyzer instead of an electrically tunable liquid crystal analyser." The Applicant respectfully traverses this rejection.

To establish a *prima facie* case of obviousness, three basic criteria must be met. First, there must be some suggestion or motivation, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art, to modify the reference or to combine reference teachings. Second, there must be a reasonable expectation of success. Finally, the prior art reference (or references when combined) must teach or suggest all the claim limitations. The teaching or suggestion to make the claimed combination and the reasonable expectation of success must both be found in the prior art, and not based on applicants' disclosure. *In re Vaeck*, 947 F.2d 488, 20 USPQ2d 1438 (Fed. Cir. 1991).

Regardless of the examiner's assertion of "obvious design choice," the applicant notes that the '984 patent neither discloses nor suggests a non-contacting apparatus, as was explained above with respect to the previous rejection. Therefore, the '984 patent cannot, as a matter of law, render claims 7, 22, and 23 (which depend from claims 15 and 16 and claim 1, respectively) obvious.

Accordingly, the applicant respectfully requests that the rejection be withdrawn.

III. CONCLUSION

In view of the foregoing, the applicant submit that this application is in condition for allowance. A timely notice to that effect is respectfully requested. If questions relating to patentability remain, the examiner is strongly urged to contact the undersigned at the telephone number set forth below.

Respectfully submitted,
Pillsbury Winthrop LLP

By: Andrew McAleavy
Thomas A. Cawley, Jr. Ph.D.
Reg. No.: 40,944
Tel. No.: (703) 905-2144
Fax No.: (703) 738-2123

Andrew McAleavy
Reg. No. 50,535
Tel. No.: (703) 905-2141

TAC:AM:ksh

P.O. Box 10500
McLean, VA 22102
(703) 905-2000